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## ORNITHOLOGICAL NOTES FROM NORFOLK AND SUFFOLK.

By T. E. Gunn, F.L.S.

Since the publication of my former notes in 'The Zoologist' for 1880 (pp. 49–54) so many demands have been made upon the spare time at my disposal that I regret I have been unable until now to prepare any further notes for publication. The following remarks on specimens which have since then passed through my hands may, I hope, prove of interest to your readers.

Osprey.—A fine male Osprey was killed at Westleton, near Saxmundham, in Suffolk, on September 26th, 1881. Its last meal I found had consisted of a small roach, the teeth and other hard bony parts of which I found in its stomach. It measured 5 ft. 4 in. across its fully-extended wings, 2 ft. in length from beak to tail, and weighed 2 lb. 10 oz. An adult female, killed at Lowestoft on October 7th, 1882, and sent me the following day, weighed 3 lb. 9 oz., and measured over six feet across its extended wings; the feathers on the breast of this bird were very ragged, being cut and broken.

Kite.—An adult female bird of this species was picked up dead on the sea-beach at Aldborough, in Suffolk, on Sept. 23rd, 1881; evidently exhausted in its migration to this coast, it had dropped into the sea and was drowned. It was washed ashore in a particularly fresh condition, and I found no marks on its body to indicate its having received any injury to account for death. The plumage was in perfect condition, and the body rather fat. Its weight I found to be 2 lb. 8½ oz.; total length from tip of beak to end of tail, 26½ in.; in the extreme measurement of its fully-

British Museum

extended wings, across the back to tip of each, 1 in. over 5 ft.; in the tail 14½ in., from tip of centre feathers to root, the outer feathers of each side of tail being the longest; the others graduating in length to the centre, which are the shortest in the tail. The stomach contained a mass of dried grass and two yellow berries about the size of peas; this matter had evidently been swallowed with its natural food, and was in process of being formed into a ball or pellet for the purpose of being ejected. A few days afterwards—namely, on the 7th October—a second specimen, likewise an adult female, was obtained at Winterton, on the Norfolk coast, and also forwarded to me. On looking over my notes for some years back I find an account of an adult male shot at Martham (near Winterton) on December 30th, 1865, and it will not perhaps be amiss to quote a portion of my remarks with reference to its measurements for comparison with those of the specimen last obtained:—In total length it measured 27 in., which is but half an inch longer than the female; and precisely the same in width across the extended wings and in the length of the centre tail-feathers, the outer feathers projecting 3½ in. beyond those of the centre. The principal difference, however, appeared in the weight, which was 1 lb. 14 oz., or 10½ oz. less than the female, although in plump condition. The stomach contained only a few bits of weed and the winglet of a Scoter.

Peregrine Falcon.—A Falcon in adult plumage was killed on March 7th, 1882, at Bixley, near Norwich, and brought to me by a friend. Although the plumage was perfect, the bird was in poor plight, which suggested that it might be infested with parasitical worms. On skinning and dissecting it, this surmise proved correct, as I found between the intestines and back a small colony of these parasites, consisting of seven or eight individuals, two of the longest measuring as much as 12 in. each in length. On December 29th, 1881, another adult Falcon was sent to me, which had been killed at Pulham St. Mary, near Harleston, and possessed a rufous-tinted breast that reminded me very much of the nearly-allied *Falco atriceps* found in India, as figured in the 'Ibis' for 1882 (p. 293), but it wanted the closer barring upon the thighs and under parts of the plumage. It had not quite finished moulting. It weighed 2 lb. 5½ oz.; total length, 19 in.; extended wings to tips, 43 in., and 14 in. in the wing from the carpal joint to tip of longest primary.

SPARROWHAWK.—On August 17th last a live female Sparrowhawk was brought me by a groom. It had been attracted by the light from a stable window, and, dashing against the glass, stunned itself, and became an easy capture. After a short time it regained consciousness, apparently none the worse for its mishap, except the loss of its liberty. I forwarded it to the Zoological Gardens, Regent's Park, where I hope it is doing well.

BUZZARDS.—The autumn of 1881, in the Eastern Counties, especially with regard to Norfolk and Suffolk, may be said to have been a remarkable season for raptorial migrants, principally of the larger species. Representatives of no less than seven distinct species passed through my hands during the course of a few weeks. Three of these I have already mentioned. Examples of all three species of Buzzards came to hand, the Common and Honey Buzzards most numerous, at least so far as my experience goes. The first Common Buzzard was sent me on September 27th. On unpacking the bird I found its plumage saturated with water, it having been shot whilst flying over Oulton Broad, and fell with a broken wing. It was quite fat and plump, and, on dissecting it, I was surprised at the extraordinary variety of its food, it having apparently stumbled across quite a larder of good things, which it seemed to have devoured indiscriminately; the crop contained, first, a female dung-beetle, quite entire, the remains of another, the full-grown larva of a privet hawk-moth (*Sphinx ligustri*) swallowed in three pieces; a small toad in an entire state, a larger toad, and a frog in parts; besides a putrid mass of frog and toad bones, beetles, and a small larva, apparently not at all affected by the gastric juice, and showing, I presume, that it had been the last thing swallowed. The gullet also was filled with frog and toad remains; in fact, the bird seemed completely gorged with food. During over twenty years experience I have never before met with an instance of such variation in the food of this species. I have skinned and dissected a large number of Common Buzzards, and have found that their prey almost invariably consisted of the brown rat and common rabbit. The bird in question was a female in immature plumage. On the following day (the 28th) another immature bird, also a female, was killed at Mautby, the stomach of which contained the remains of a common brown rat and a large earthworm.

Rough-legged Buzzard.—In the Eastern Counties this bird, during autumn, is usually more common than *Buteo vulgaris*—at least it has proved to be so during the last eight or nine years. The majority of Rough-legged Buzzards that occur in Norfolk and Suffolk are immature birds in the first year's plumage. The only example seen in 1881 (and I heard of but one other) proved to be a female in the second year's plumage. It was killed on November 11th on the coast at Sherringham, and was sent me the following day. The broad band crossing its abdomen was of a very dark umber, several shades darker than in a bird of the first year's plumage; the bars crossing the thigh-feathers also were more numerous and of the same shade of colour. Although this bird was in good plight, it had no food in the stomach. The usual prey of this species consists of rabbits and rats, and occasionally the Water Vole. The average weight is about 2½ lb.

Honey Buzzard.—Several specimens were obtained along the eastern coast during September and October, 1881, the majority of examples, so far as I observed, being in the immature plumage of the first year. The first individual in this dress, a male, came to me on September 26th from Burgh, near Yarmouth; and several other young birds were also obtained in the same district, two being caught alive in traps placed for the purpose in the vicinity of wasps' nests, the birds having been previously observed scratching up the earth there. Wasps' and bees' nests are seemingly a great attraction to this species, whose food consists not only of the honey, but the comb-grubs, and the bees and wasps themselves, the grubs being most numerous in the stomachs examined. On dissecting the first-named example I noticed the stomach was small and apparently contracted: it contained only some thick sticky greenish matter. The weight of this bird was 1 lb. 12½ oz.; the measurements were, total length, 22½ in.; extended wings, to tip of each, 48½ in.; wing from carpus, 15½ in. A specimen in the second year's plumage was sent me a few days later, namely, on October 3rd, from Yarmouth. This was a fine female bird; the feathers of the head and nape were brown and white intermixed, giving those parts a mottled appearance: the broad transverse bars of its breast and flank feathers also showed very conspicuously, being of a deep brown, which contrasted well with the remaining portion of the plumage, which was white; bill and claws black;

eyes, legs, and toes, deep yellow; the back, shoulders, and upper wing-coverts were of a dark umber; the colour of the plumage of the first year is of a paler chocolate-brown.

MARSH HARRIER.—On October 15th, 1881, a fine male of this species was shot on the marshes near Hickling Broad. It was just assuming its slate-coloured tail, indicating an approach to maturity. Like the other raptorial migrants obtained that season, it proved in good plight. Just previous to capture it had dined on a Water Vole.

TENGMALM'S OWL.—Perhaps a few additional particulars relating to the specimen of this bird in the collection of Mr. J. H. Gurney, jun. (Zool. 1882, p. 115) may be acceptable, Mr. Gurney having placed it in my hands for preservation. The measurements were as follow:—Wing, from carpal joint, 6¼ in.; along the ridge of upper mandible of beak, ⅝ in.; tail, 4 in.; tibia, 2 in.; tarsus, 1 in.; middle toe and claw, 1¼ in.; inner toe and claw, $1\frac{3}{16}$ in.; outer toe and claw, ⅞ in.; hinder toe and claw, ⅞ in. The first primary short, the second longer by 1⅛ in., the third ⅜ in. longer than second, and the longest in the wing. The bill of a pale horn-colour, darker on the cutting edges of both mandibles; claws black; the eyes large and of a pale chrome-yellow; pupil black.

MISSEL THRUSH.—Whilst driving through Wroxham (seven miles from Norwich), on September 20th last, my attention was attracted by a bird that flew out of the hedge by the roadside. I recognised it as a Missel Thrush, but was struck by its peculiar pied appearance. As it passed me within a few yards I noticed a broad patch of white feathers extending across the back and wings. This species is not, I believe, much given to variation of plumage. I have noticed but three previous instances.

RING OUZEL.—Several occurred in the neighbourhood of Norwich early in October, 1882. A male was picked up under the telegraph wires in Heigham on the 7th; another was shot at Earlham on the 9th; and others seen. A male was sent me from Cromer in April, 1883, with patches of white feathers about the head.

KINGFISHER.—This bird was unusually abundant in the neighbourhood of Norwich during August, September, and October. Those obtained were mostly birds of the year.

HOUSE MARTIN.—A curious variety of this bird was shot on

July 29th last at Kirby Cane, near Bungay. The whole of the upper parts of its plumage were of a pale ash-grey, instead of the ordinary hue, the feathers of the wings and tail edged with white, the usual white upper tail-coverts, and the under parts of the plumage as in ordinary specimens; eyes pale pink. It was in immature plumage, and a female by dissection.

Green Woodpecker.—On February 3rd, 1881, an adult male *Picus viridis* was killed at Cossey, near Norwich. That this bird had exceeded the ordinary limit of Woodpecker life is, I think, clearly shown by the extraordinary length and form of growth its bill had attained. This measured as much as 2⅛ in. along the ridge of upper mandible, and also presented a curved form (with the ridge somewhat more raised in the centre) as much as the bill of *Certhia familiaris*. The yellow rump was very brilliant in this specimen, and assumed a rich and deep orange tint in the centre. The posterior red feathers of the crown, extending down the nape, were of a peculiar fiery red. In measuring the bills of several ordinary examples of the Green Woodpecker, I find the average length to be 1⅝ in. The specimen in question had been resident in the neighbourhood for some years, visiting almost daily an old tree, from the branches of which it met with its untimely end at the hands of a stranger on a visit to the neighbourhood. I herewith enclose rough outlines of this peculiar growth of bill with that of an ordinary example for comparison.

Great Spotted Woodpecker.—An adult male of this species was shot on January 19th, 1881, at Hickling, within two or three miles of the sea, rather an unusual occurrence in that locality. I have known but one other instance of its appearance there during a number of years. In the stomach I found the empty skins of three full-grown larvæ of the wood leopard moth (*Zeuzera æsculi*), the skins uninjured externally, but their contents squeezed out.

Lesser Spotted Woodpecker.—During the past three seasons the occurrence in some numbers of this species in Norfolk and Suffolk shows that it is now not an uncommon bird in the Eastern Counties, although formerly considered so. On February 25th, 1881, an adult female was shot in Ketteringham Park; a pair were seen, but the male escaped. The feathers of the crown of the head in this specimen were white, being intermixed with a few patches of red; and, as the crown in the adult male is entirely red, this forming the principal outward distinction in the sexes, I am of opinion that the presence of these red feathers in this female, assimilating to the plumage of the opposite sex, is an indication of age; but I am not aware of any instance of its completely assuming the entire red crown of the male. In dissecting the stomach I found it to contain the remains of the larvæ of the wood leopard moth (*Zeuzera æsculi*); I counted the skins of as many as ten small ones. These were mixed with the remains of some minute Coleoptera. On December 28th another, also a female, was shot in Witton Park, North Walsham. This also had been feeding on the same kind of larvæ, which, with the remains of other insects, filled its stomach. The crown of the head in this specimen was entirely white. On February 27th, 1882, an adult male was killed near Wangford, and in February and March, 1883, three males were obtained near Norwich; the contents of the stomach in each instance proved of the same nature as already described.

LITTLE GULL. — A specimen of the Little Gull, in immature plumage, was killed by a gunner named Bensley, whilst flying over Hickling Broad during the second week in October last.

BITTERN.—On December 9th, 1882, a male Bittern was sent me from North Walsham, having just been killed in that neighbourhood. On opening the stomach I found a small pike of 3½ in. in length, and quite entire.

NIGHTJAR.—In 'The Zoologist' for September and October last (pp. 380 and 429) are recorded several instances of the late nesting of the Nightjar; and Mr. J. H. Gurney, jun., in mentioning some interesting facts relating thereto, seems to be of opinion that this species is generally double-brooded. I cannot say that I quite agree with him on this point, and instances of a second brood I think must be rare. When young birds or eggs have been found late in the autumn they probably indicate that the first eggs had been taken or destroyed, as must sometimes happen from the fact of this bird selecting such exposed situations for the deposition of its eggs. I have received no late nestlings this season, although I did so in one instance last year, when some young birds not able to fly, but with the feathers nearly all in stumps, were brought to me in the middle of August. I have referred to my notes for the dates of finding other nestling Nightjars, and it appears that they were all met with in the preceding month, July, the dates being the 12th, 15th, 17th, 18th, and 23rd. The Nightjar, as a summer migrant, arrives here rather late, some time in May, and leaves again in September, and there is scarcely a possibility of the young of a second brood, if hatched so late as the middle of August, being sufficiently strong to leave at the period of migration. The occurrence of this species after that month is very unusual; four instances only are mentioned in the new edition of Yarrell's 'British Birds' (vol. ii. p. 378), and I know of but one other such instance myself. There is every probability that the majority of these late-hatched birds must perish of cold or starvation.

Waders in Breydon Harbour.—I was shooting on Breydon Water on September 12th, and the first bird that I secured was a fine young male Turnstone, the only one I saw during the day. I also killed some young Knots and Curlew Sandpipers. The sexes of the latter are easily distinguished in this stage, the male being much smaller than the female, and having the breast, neck, and cheeks suffused with a buffy tinge, the same parts in the female being white; both have the ashy grey streaks down the feathers of those parts, but they are more distinct in the female. I noticed several Curlew Sandpipers mingling with the larger flocks of Dunlin and Ringed Plover, but occasionally during the day small parties of seven or eight individuals passed by themselves. I saw a few Greenshanks and Redlegs; amongst the former was a solitary Ruff, which was afterwards shot by Mr. Harmer. The Curlews were, as usual, very shy, and kept well out of gunshot. A Black Tern ("Blue Daw," as it is locally called), in immature plumage, passed our boat, though out of distance, but soon afterwards I shot an adult and immature Lesser Tern. I also recognised Shoveller, Teal, and Mallard. An immature Spotted Redshank (*Totanus fuscus*) and a beautiful specimen of the Manx Shearwater were killed a few days before the date of my visit.

Curious Variety of Waterhen.—A curious variety of the Common Waterhen was shot near Norwich on April 4th, 1883, and brought to me the following day for preservation. The crown of the head and cheeks circling the eyes are of the usual colour; the anterior portion of the feathers of back of head of a reddish orange hue; those of the back and sides of neck dark grey, faintly suffused with a yellowish tinge on the latter parts, the throat-feathers faintly tipped with grey; the feathers of the back, wing, and upper tail-coverts deep reddish orange colour; all the under parts greyish white, tinged with pale orange on the flanks, assuming a reddish orange along each side of the vent. The beak and legs, tail-feathers and primaries, of the normal colour. The eyes of a reddish brown, as observed in immature birds of the ordinary type. The bird in question proved a male by dissection, and was apparently fully adult. The thin and hairy nature of these abnormally-coloured feathers impressed me with the idea that from some cause or other the bird had been unable to moult during the preceding season. Mr. Bulwer, who shot this specimen, informed me that another bird, evidently its mate, was flushed by the dog at the same time from the side of the ditch, and, although repeatedly seen afterwards in the same locality, had not, so far as he was aware, been captured; this bird also presented the same abnormal appearance. Two previous instances of this peculiar variety are recorded in the 'Birds of Norfolk' (vol. ii., p. 422).

LITTLE BITTERN.—An immature female specimen of this rare species was shot on the marshes at Lower Abbey, Leiston, in Suffolk, on August 25th, 1882, and was sent to me the following day for preservation. I noted the measurements as follows:—Total length, from tip of beak to end of tail, 15½ in.; fully-extended wings to extreme tips, 21½ in.; wing, from carpus to tip of longest primary, 5¾ in.; tibiæ, 2⅞ in.; tarsus, 1⅞ in.: weight, 5 oz. The eye was of a straw-yellow, with a fine circle of a paler tint around the black pupil. The upper mandible on its upper surface was dark horn, the sides paler, merging into a greenish yellow from the nostril to the gape; the under mandible of a pale horn, with a greenish yellow tinge at gape, the circle around the eye yellowish green; a stripe of pale brown in front of the eye divides the circle from the gape; tongue and mouth flesh-colour. On skinning this bird I found the body exceedingly fat, and the stomach distended with the remains of several specimens of the water-boatman (*Notonecta*), including three in so perfect a state as to admit of their being pinned out; also two small pike, each measuring 3¾ in. in length. The heads of these were decomposed; their bodies still, however, exhibited a certain degree of freshness, proving the rapid action of the gastric juice. Each fish was nipped across the middle, and the sharp points of the bird's mandibles had penetrated the softer part (abdomen) of the fish.

Cormorant and Shag.—As several instances of the perching of water-birds have recently been placed on record, it may perhaps be of interest to add that an immature specimen of the Shag, sent me on February 22nd last, was shot whilst perched on the spire of the parish church of Attleborough, as I was informed by Sir Thomas Beever, Bart., to whose collection the specimen has been added. Four or five young Cormorants were observed in Yarmouth Roads early in September last, and I saw one on the 11th of that month about a hundred yards from the beach.

## UNCOMMON VARIETIES OF BRITISH BIRDS.

By Oliver V Aplin.

During a visit to Mr. J. Whitaker, at Rainworth Lodge, near Mansfield, I had an opportunity of inspecting his very unique collection of birds, amongst which are the follhwing singular varieties, a list of which I think will be of interest to your readers:—

*Lanius collurio.*—1, pure white.

*Muscicapa grisola.*—1, pure white.

*Turdus viscivorus.*—1, very pale coloured.

*T. musicus.*—1, white variety; 2, very pale coloured; 3, ditto.

*T. pilaris.*—1, pied about the head and neck.

*T. iliacus.*—1, curious variety (described Zool. 1882, p. 151), chestnut-coloured, but showing all the markings.

*T. merula.*—1 and 2, white varieties; 3, roan-coloured; 5, cream-coloured; 6, hair-brown; 7, 8, 9 and 10, more or less pied with white.

*T. torquatus.*—1, pied about the head and back.

*Accentor modularis.*—1 and 2, cream-coloured; 3, sandy; 4, white, with brown wings.

*Erithacus rubecula.*—1, white variety; 2, ash-coloured.

*Pratincola rubicola.*—1, pied on the head, back, and wings.

*P. rubetra.*—1, pale yellow-coloured variety.

*Saxicola œnanthe.*—1, the upper plumage snow-white.

*Daulias luscinia.*—1, pure white variety.

*Phylloscopus sibilatrix.*—1, white, with a slight tinge of yellow on the wings.

*P. trochilus.*—1, white variety.

*Troglodytes parvulus.*—1, white wings and white markings on the head.

*Motacilla lugubris.*—1, adult; 2 and 3, nestlings; all white.

*M. Raii.*—1, cream-coloured.

*Alauda arvensis.*—1, white variety; 2, very dark melanism; 3—10, pied and sandy-coloured varieties.

*A. arborea.*—1, pied on the back and head.

*Otocorys alpestris.*—1, sandy-coloured variety.

*Emberiza miliaria.*—1, cream-coloured; 2—4, more or less pied.

*E. schœniclus.*—1 and 2, cream, with sandy markings.

*E. citrinella.*—1 and 2, cinnamon-colour; 3, cream-coloured; 4, white bars on the wings.

*Fringilla cœlebs.*—1, cream-coloured, showing the markings in pale drab; 2, smoke-coloured; 3, pied; 4, a very pale variety; 5, 6 and 7, light-coloured varieties.

*Chrysomitris spinus.*—1, grey variety.

*Linota cannabina.*—1 and 2, pure white; 3, pied; 4, nearly white, with brown feathers in the wings; 5, a melanism with white feathers on the back.

*L. rufescens.*—Two pure white.

*Passer montanus.*—1, light variety, with a few white feathers on the back, head, and wings.

*P. domesticus.*—1—5, white varieties; 6—20, pied, cream-coloured, and chestnut varieties.

*Ligurinus chloris.*—1 and 2, yellow-green; 3, yellow, with green wings; 4, wings and head yellow.

*Pyrrhula europæa.*—1, melanism; 2, a nestling of a cinnamon-colour having very pink eyes; 3, black, with white flight-feathers; 4, French-grey wings and back, rose breast normal; a semidiaphanous-feathered bird.

*Sturnus vulgaris.*—1—3, white varieties; 4—11, sandy and pied varieties.

*Corvus corone.*—1, brown, with blotches of liver-colour.

*C. cornix.*—1, grey markings on the back, wings, and tail.

*C. frugilegus.*—1, grey; 2, pied.

*C. monedula.*—1, white breast and marks on the wings; 2, the grey of the head is continued all over the body.

*Pica rustica.*—1, the black replaced by cinnamon-colour.

*Garrulus glandarius.*—1 and 2, pure white adult birds; 3, pure white nestling; 4, white on the head and white wings, except the blue feathers, which are normal.

*Gecinus viridis.*—1, yellow blotch on the wing, and flight-feathers showing sandy markings.

*Picus major.*—1, back and wings strongly marked with chestnut (*vide* J. H. Gurney, 'Rambles of a Naturalist,' p. 77).

*Cuculus canorus.*—1, white, with markings in sandy bars, breast almost white.

*Hirundo rustica.*—1, pearl-grey; 2, adult pied bird (rare); 3, cream-coloured.

*Chelidon urbica.*—1, a dirty-white variety.

*Cotile riparia.*—1, white; 2, slate-blue.

*Cypselus apus.*—1, with white breast and white on the head and back; 2, slightly pied.

*Columba palumbus.*—1, pearl-grey on the back.

*Phasianus colchicus.*—1 and 2 (male and female), pure white; 3, pied.

*Lagopus scoticus.*—1, a pale slaty grey variety.

*Perdix cinerea.*—1, very pale variety with a dark horse-shoe, and with flight-feathers white; 2, sandy, with brown markings.

*Vanellus cristatus.*—1, a considerable amount of white on the wings; head, back, and wing-coverts marked with cream-colour.

*Ægialitis hiaticula.*—1, having a pale yellow back and white wing-coverts.

*Scolopax rusticula.*—1, pale yellow, with the markings of a grey-brown; 2, biscuit-brown, black markings on the back; head black and buff; flight-feathers ash-grey; breast pale cream.

*Gallinago cœlestis.*—A pale rufous example of the variety known as "Sabine's Snipe."

*Rallus aquaticus.*—1, ash-grey, yellow markings on the back.

*Crex pratensis.*—1, very pale-coloured variety, the markings on the back nearly white.

*Gallinula chloropus.*—1, grey, with a sandy tint on the back (query: is this the "sandy variety" mentioned in the new edition of Yarrell as killed in Notts?).

*Anas boschas.*—1, white, with brown marks.

*Spatula clypeata.*—Very pale buff, with some liver-coloured marks on the shoulders, and mottled with white.

*Lomvia troile.*—1, with white on neck and head.

*Uria grylle.*—1, sandy flight-feathers.

*Larus canus.*—1, wanting the black on flight-feathers, the grey on the back paler than usual, tail band ash-colour.

*Stercorarius pomatorhinus.*—1, nearly black.

The varieties might be roughly classified thus :—

1.—Melanisms, *e.g.*, Redwing, Bullfinch, &c.

2.—Birds in typical plumage, except that they lack intensity of colour, *e.g.*, Song Thrush, Landrail, &c.

3. Albinisms : i., the feathers being white, *e.g.*, Shrike and Redpole ; ii., the feathers being tinged with colour, *e.g.*, nestling Bullfinch and Missel Thrush.

4.—White varieties, *e.g.*, Nightingale, Sparrow, Willow Wren.

5.—Birds abnormally coloured, *e.g.*, Magpie and Yellow Bunting.

6.—Pied varieties, *e.g.*, Blackbird, Wren, &c.

## AN AUTUMN VISIT TO SPITZBERGEN.

### SUPPLEMENTARY REMARKS.

By Alfred Heneage Cocks, M.A., F.Z.S.

The notes on the above subject in 'The Zoologist' for 1883 concluded with the list of the species of birds actually obtained during this voyage. In addition to these the following species were noted (and among these latter Brünnich's Guillemot should have been included, instead of in the preceding list, as we did not actually handle a specimen).

Falcon, *Falco* sp ? ; Norwegian, "Falk."—A Falcon was seen by Arnesen and some of the men when we were at the Swedish Meteorological Station at Cape Thordsen, on Sept. 12th, stooping at one of the tame pigeons brought out by the Expedition. They succeeded in saving the pigeon by shouting and waving their arms. As one of the pigeons had been missing for a few days previously, it is possible this was not the Falcon's first visit to that spot. At Recherche Bay, on Sept. 22nd, we had a good view of a Gyrfalcon, which species I cannot say positively, but it looked white enough for *F. candicans*. Probably the few Falcons that have been seen in Spitzbergen belonged to the same species. One of our men told me he had previously seen a Falcon in Spitzbergen which, though he (very vaguely) described it as "the common brown falcon," is much more likely to have been one of the grey Gyrfalcons, very possibly an immature bird. Although it is not impossible that the bird seen by us on these two occasions was one and the same, and that the bird the seaman told me of was not a Falcon at all, yet it seems likely that a species of *Falco* is not so rare in Spitzbergen as was previously supposed (*vide* Zool. 1882, p. 416; and Newton, 'Ibis,' April, 1865).

Snow Bunting, *Plectrophanes nivalis*, L.; Norwegian, "Sne-Spurv," "Sne-titing."—Very numerous at Cape Thordsen on Sept. 12th between the coast and the house occupied by the Swedish Meteorological Expedition; and a large flock, which were extraordinarily shy, at Sassen Bay on the 15th. A single bird flew in a southerly direction past the smack, in about lat. 75° 7′, on Sept. 28th.

Buffon's Skua, *Stercorarius longicaudus*, Vieillot.—The Norwegian ice-seamen do not, I think, recognise the existence of any other species of Skua than *S. crepidatus*, and therefore have, so far as I know, no name besides "Tyvjo." A pair of Skuas, which may have been this species, at sea in about lat. 75° 34′ on Sept. 3rd; and a single bird in Green Harbour on the morning of Sept. 9th may perhaps also have been this species.

Brent Goose, *Bernicla brenta*, Steph.; Norwegian, "Trap Gaas."—A large number, adults and young, seen by Àrnesen close to the smack early on the morning of Sept. 7th, a little N.W. of South Cape.

Pink-footed Goose, *Anser brachyrhynchus*, Baillon; Norwegian, "Graa Gaas" (no special name for this species is in ordinary use).—About eight geese, which appeared to be this species, seen a little to the north of Horn Sound on the evening of Sept. 7th, flying S. Several seen during a walk Lieutenant Stjernspetz and I took westwards from the Swedish Meteorological Station at Cape Thordsen on Sept. 12th; and, as the Lieutenant succeeded at that time in bagging an immature example, I might have included this species among those obtained during our voyage. In Sassen Bay, on Sept. 14th, I saw about fourteen geese flying, which were without much doubt this species. About 150, which were extremely shy, in Recherche Bay on Sept. 22nd, and about a dozen seen flying the next day, were most likely the same species. A "skjöite," which followed us into Recherche Bay for shelter, had a live gosling of each of these two species on board.

Long-tailed Duck, *Harelda glacialis*, L.; Norwegian, "Havel." —Three ducks flying in Recherche Bay on Sept. 22nd were without much doubt this species, but they did not come close enough to identify with certainty.

King Eider, *Somateria spectabilis*, L.; Norwegian, "Pragt Eder," "Grönland's Eder."—A single bird, doubtfully identified as this species by one of M. Rabot's boat's-crew, in Green Harbour on Sept. 9th. On Aug. 6th, 1882, Herr Dreyer found many Eider's nests on a small island off the S.W. coast of Prince Carl's Foreland, and among them one containing four eggs rather smaller than the normal size of *S. mollissima*; two of these, which he kindly gave me, measure 64 and 63 mm. in length respectively. Though it is perhaps impossible to speak positively, it seems likely that these may be eggs of *S. spectabilis*.

Three ducks seen by me and my boat's crew in Sassen Bay on Sept. 14th were neither species of Eider, nor, I feel quite certain, Long-tailed Ducks, which is the only other species of duck hitherto recorded from Spitzbergen. My reasons for very doubtfully supposing them to have been *Oidemia fusca* (Linn.) have been recorded at length (Zool. 1883, p. 407).

Black-throated Diver, *Colymbus arcticus*, Pennant; Norwegian, "Stor Lom."—I have no doubt that a pair of Divers met with near the entrance to Green Harbour on Sept. 9th were of this species, and out of several *Colymbi* seen flying later in the day believe that at least one pair were Black-throated. Three Divers, were seen flying in Sassen Bay on Sept. 15th, whose species could not be determined, and, though the Red-throated is the more probable species, they may possibly have been Black-throated. This species has not been previously recorded from Spitzbergen, but Lensmand Klerk, of Elvenæs, Syd Varanger, told me this autumn (1883) that he had shot this species in Spitzbergen when up there some years since.

Great Northern Diver, *Colymbus glacialis*, L.; Norwegian, "Imber."—A bird was seen by our harpooner on Sept. 8th a few miles off the coast, between Bell Sound and Is Fjord, which he was quite confident was an "Imber," and not a "Lom" (*i. e.*, either of the other two species of *Colymbus*). This species has not been previously recorded (even doubtfully as now) from Spitzbergen.

The following species complete the Spitzbergen list, as far as known at present:—

Snowy Owl, *Nyctea nivea*, Daud.; Norwegian, "Sne Ugle," "Is Örn" (lit. Ice-Eagle, but applied to this species).—Has been met with rarely.

Ringed Plover, *Ægialitis hiaticula*, L.; Norwegian, "Ringel" (*fide* Malmgren, quoted by Prof. Newton, 'Ibis,' 1865).—Has been met with in a few instances.

Whimbrel, *Numenius phæopus*, L.; Norwegian, "Smaa-Spove."

Turnstone, *Strepsilas interpres*, L.—A single example of each of these obtained by me in 1881 (Zool. 1882, p. 408).

Red-necked Phalarope, *Phalaropus fulicarius*, L.—Uncommon, and not met with on either of my visits; but Herr Johan Dreyer, of Tromsö, who visited Spitzbergen again this year (1883), met with several birds, which, from his description, were, I have little doubt, this species.

Ivory Gull, *Pagophila eburnea*, Phipps; Norwegian, "Is Maake" (pronounced in the north "Maase.")—Not a single example seen during our voyage of 1882, but Herr Dreyer this year found them breeding as far south as Bell Sound, which is in keeping with the opinion expressed by Professor Newton in the 'Ibis' for 1865, that he was "inclined to think that the Ivory Gull breeds sporadically on many other parts of Spitzbergen proper." *

Pomatorhine Skua, *Stercorarius pomatorhinus*, Temm.—Not recorded as actually obtained in Spitzbergen, where it appears to be of rare, if not doubtful, occurrence.

Bernicle Goose, *Anser leucopsis*, Bechst.—Lieut. Stjernspetz informed me that the members of the Swedish Geological Expedition (of 1882) had shot two adult birds of this species in Bell Sound, and taken three young ones alive. The only previous mention of the Bernicle Goose in Spitzbergen is a single example recorded by Baron Nordenskiöld as shot by him in Bell Sound in 1858. No other observer having met with this species in Spitzbergen, and the fact of the confusion in the scientific names, led Prof. Newton to suppose that the bird in question was simply a Brent Goose.

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* The summer of 1883 seems to have been an exceptionally open season in Spitzbergen.

Swan, *Cygnus* sp.?—One recorded as shot, and on another occasion one seen (Newton, 'Ibis,' quoting Malmgren).

Common Guillemot, *Alca troile*, L.—This species has not been recorded from Spitzbergen since Parry's fourth voyage, but Herr J. Dreyer is convinced that he shot, in 1881, "a Common Alke," similar to the birds he is familiar with round Tromsö, and which he is sure was not a "Spitzberg's Alke" (Brünnich's Guillemot).

This brings up the total number of species of birds which have occurred in Spitzbergen, if the present doubtful identifications are all correct, to thirty-two, or five more than Dr. Malmgren's total in 1864, or Prof. Newton's in 1865.

While in the north of Norway this autumn (1883) I saw a pair of young Polar Bears alive on board a Norwegian "jagt" from Spitzbergen, and one on a Russian from Novaya Zemlya; and heard of others. There were two Bears seen this summer at Bell Sound, neither of which was killed.

The Bear on the Russian vessel was within an ace of escaping from its box when I went to see it, one of the crew having incautiously opened the trap-door. It received a fearful blow on the head from the back of an axe, and was only reduced to order by a man charging it with a pole, which he rammed down its throat, and forced it backwards into its box. The uncouth crew were so wildly excited that I began to think I might be the next to receive a blow from the axe on my head, and was not sorry when I was once more over the schooner's side and in my boat.

Richardson's Skua, *Stercorarius crepidatus* (Gmel).—Herr J. Dreyer gave me two eggs which he took this season (1883) from the same nest in Middle Hook, Bell Sound; one is of the normal colour of eggs of Richardson's Skua, olive-brown, spotted with dark brown; while the other more resembles a Pomatorhine Skua's egg (with which, however, I have not compared it), being a pale greenish blue, with a few small brown spots distributed over the whole surface. Both eggs are unfortunately broken, but the blue one, which is in the best condition, measures about 57 mm. in length.

Eider Duck, *Somateria mollissima*, L.—Herr Dreyer, who was in Spitzbergen these last two seasons early enough to get eggs, found a very great difference in the size of those of Eider Ducks. Small ones (the smallest he gave me only measures 40 mm. in length) are perhaps the result of the birds becoming exhausted by the nests being repeatedly robbed; but, on the other hand, one he gave me measures as much as 89 mm.!

Red-throated Diver, *Colymbus septentrionalis*, L.—Herr Dreyer found the Red-throated Diver breeding plentifully on a small island off the S.W. side of Prins Carl's Foreland in 1882 and 1883. He kindly gave me a series of their eggs. On Aug. 6th, 1882, he found on this island several newly-hatched young, while most of the eggs were highly incubated.

Little Auk, *Mergulus alle*, L.—Another name commonly used in Norway for this species is "Rotjems."

Purple Sandpiper, *Tringa maritima*, L.; Norwegian name, "Fjærplyt."—This name is common to all the small waders found in Norway, and does not exclusively mean *T. maritima*.

Herr Dreyer also gave me the following additional eggs, which he had taken this season (1883) in Spitzbergen:—Brent Goose and Glaucous Gull, from Prins Carl's Foreland; Pink-footed Goose and Brünnich's Guillemot, from Middle Hook, Bell Sound; and a series of Arctic Terns' eggs.

Very few species of fish were met with again this voyage. The following list includes all the species that I know of in Spitzbergen waters:—

Salmon, *Salmo salar*, L.; Norwegian, "Lax."—Well known to occur in Spitzbergen, but not met with by us.

*Salmo*, sp.?—Some small fresh-water fish at Green Harbour, as recorded (Zool. 1883, p. 401), I assumed to be some species of *Salmo*, as this is, I believe, the only genus of fresh-water fish recorded from the Arctic.

Cod, *Gadus morrhua*, L.; Norwegian, "Torsk."—Very abundant, as a rule, off the west coast; but this season (1883) they were extraordinarily scarce, some fishing vessels catching only two or three during the whole voyage.

Haddock, *Gadus æglifinus*, L.; Norwegian, "Huse" (this name is, I believe, restricted to the north of Norway; the Dictionary name is "Kuller").—Rare, but growing very large (Capt. Steenersen, of the 'Isbjörn'). I saw some Haddock on the East Finmarken coast this autumn larger than any I had previously seen in England, or elsewhere, but I took no measurements.

Holibut, *Hippoglossus vulgaris*, Flem.; Norwegian, "Kvete," "Helleflynder."—Up to three "vog" weight (Steenersen). This is about equal, I believe, to one stone.

Red-fish or Bergylt, *Sebastes norvegicus?*; Norwegian, "Uer," "Röd-fisk."—Very small, not exceeding seven or eight inches in length (Steenersen). The Report of the Norwegian North Atlantic Expedition mentions a Red-fish only found in Spitzbergen in very deep water. I am not able to refer to the Report as I write, but it may perhaps be that the fish known to Captain Steenersen are the young of this species.

Lump-sucker, *Cyclopterus* sp.?; Norwegian, "Marrolk" (unknown to the Dictionary).—I think the species I obtained with the dredge this voyage in Green Harbour differs from the Lump-suckers I found in Cods' stomachs in 1881, but, as my specimens are still at Oxford, I have not had an opportunity of comparing them.

Coal-fish, *Merlangus carbonarius*, Cuv.; Norwegian, "Sej."—Found by Bear Island, but not further north (Steenersen).

Greenland Shark, *Scymnus borealis*, Flem.; Norwegian, "Haa-Kjærring."—One harpooned and captured by us in Sassen Bay on Sept. 18th (*vide* Zool. 1883, p. 436). While in Vardö this autumn I saw many "jagts" returning from the Shark-fishery, which, as remarked by Prof. Newton (Proc. Zool. Soc., 1864), is chiefly prosecuted about midway between that coast and Bear Island, not many vessels going further north than that island. Many of the men engaged in that fishery, with whom I spoke, said that they caught two kinds of Shark; if so, I do not know which species this second kind would be.

Skate, *Raia*.—Two species are described in the Report of the Norwegian North Atlantic Expedition. A single specimen (? sp.) recorded by me in 'The Zoologist,' 1881.

The few Invertebrates I collected (and the fossils) are in the hands of the same two friends who have my small collections of 1881.

The following are the more important misprints which have crept into this paper:—

Page 400, line 12, *for* hverdajs *read* hverdags; p. 402, l. 12, *for* Konang *read* Konung; p. 403, l. 2, *for* 2 p.m. *read* 2 a.m.; p. 405, l. 2, *between* her *and* Foraaret *insert* i; p. 408, l. 6, *for* Novara Z. *read* Novaya Z.; p. 408, nine lines from bottom, *for* seamen *read* seaman; p. 437, l. 5, *for* Rypa *read* Ryper; p. 438, nine lines from bottom, *for* and found *read* as we found; p. 440, seven lines from bottom, *for* Kåunedom *read* Kånnedom; p. 441, last line, *for* Novaija Z. *read* Novaya Z.; p. 447, l. 24, *for* large one *read* rather large lot; p. 480, l. 20, *for* Lofotus *read* Lofotens; p. 482, three lines from bottom, *for* five *read* six; p. 486, l. 6, *for* those *read* three; p. 486, l. 8, *for* Vaudvaag *read* Vandvaag; p. 486, l. 23, *for* Cephus *read* Cepphus.

## ORNITHOLOGICAL NOTES FROM THE FRENCH PYRENEES.

By James Backhouse, Jun.

The following notes were collected during May and the early part of June last year, and are composed chiefly from observations made by myself at Argèles and St. Sauveur, in the Hautes Pyrénées.

I was also fortunate in gaining access to two local collections, one near Argèles, and the other at Luz, a mile or so from St. Sauveur. The birds contained in the former were collected and preserved by a peasant farmer, most of them being admirably stuffed and wonderfully life-like; whilst those in the latter collection were just the reverse, and comparatively few in number. I was able, however, to gain from both of them some useful notes respecting birds taken in the district.

Though perfectly well aware of the incompleteness and imperfection of these notes, yet, knowing well the comparatively small amount of ornithological information which is extant from the French Pyrenees, I hope that my writing thus may not be altogether in vain.

*Turdus viscivorus*, Linn.—Fairly abundant. Breeding. I have eggs from Argèles (1530 ft.)

*T. iliacus*, Linn.—One or two in the collection at Luz.

*T. merula*, Linn.—I have no recollection of seeing this bird at all in the Pyrenees, nor have I any note of it from either of the local collections.

*T. torquatus*, Linn.—In the Argèles collection there was a lovely specimen with a cream-coloured head. Fairly abundant in winter. I may here mention that in the Nice market during January this year I saw some magnificent specimens of the above. There were hundreds of them towards the latter part of the month, many being very fine varieties.

*Monticola saxatilis*, Linn.—In both the local museums; and I bought one, an adult male, from that at Luz.

*Monticola cyanus*, Linn.—Upon making inquiries I found that this bird, though scarce, is known in the "Hautes Pyrénées," and I afterwards saw one in the Argèles collection. According to M. Adrien Lacroix it breeds annually.

*Cinclus albicollis*, Vieill.—All the Dippers I observed at St. Sauveur were referable, I believe, to this species. Those at Argèles I failed to identify. I remember seeing a pair of undoubted *C. aquaticus* in the Luz collection, and these were the only ones I satisfactorily identified as of the British species. On June 4th I shot a young Dipper at St. Sauveur, which is undoubtedly *C. albicollis*, and that same evening a "chasseur" brought in an adult male, also *C. albicollis*. Neither Lacroix nor Deglaud and Gerbe include *Cinclus albicollis* in their works as a distinct species. I found a nest, which I imagine belonged to *Cinclus albicollis*, some miles above St. Sauveur at an elevation of about 3000 feet. It was empty, the young having taken their departure.

*Saxicola œnanthe*, Linn.—I shot two magnificent old male birds of this species high up upon Pic Bergons (about 5000 ft.) From their small size and light plumage I almost thought at first that they were some different species. I am now satisfied, however, that in reality they are genuine Wheatears. This small size and unusually light colouring I have since met with in other continental birds as well.

*Ruticilla titys*, Scop.—Many of these in the high valleys, but they were exceedingly wild, and consequently I failed to bring home any specimens. A pair evidently had a nest close at hand in a secluded valley at an elevation of about 4000 feet. I found a nest with young by the river side some distance above

St. Sauveur, at an elevation of about 2800 feet above the sea-level.

*Cyanecula Wolfi*, C. L. Brehm.—A pair of the above, very nicely stuffed, were shown to me by the Argèles collector. They both appeared to be immature birds, and were shot in the neighbourhood of Argèles.

*Daulias luscinia*, Linn. — These charming little songsters swarmed at Argèles, but I heard none higher up the valley. They were chiefly heard in the daytime.

*Sylvia rufa*, Bodd.—My brother shot a specimen at Gèdre (2600 ft.). Several at Argèles also.

*S. atricapilla*, Linn.—Common everywhere.

*S. salicaria*, Linn. — I shot one, a female, on May 17th, at Argèles.

*Regulus cristatus*, Koch. — Exceedingly abundant in the pine forests,—in fact, in that above St. Sauveur I may say it is the commonest bird. Evidently breeding. Up to about 6000 feet.

*R. ignacapillus*, Brehm.—To be found here and there among the Goldcrests, but decidedly the rarer of the two species. I shot one, a male, in the pine forest above St. Sauveur.

*Phylloscopus collybita*, Vieill.—I thought once that I caught the sound of its little voice in an obscure valley near Argèles, but could not be at all certain. M. Lacroix says that it is noticed in the Hautes Pyrénées during the migrations in spring and autumn.

*Acredula Irbyi*, Sharpe and Dresser.—On May 17th I shot a female of this species at Argèles, and another on May 28th at St. Sauveur. The latter was quite a young bird. The flock it was with must have numbered some dozens, of which most, I believe, were immature birds. The Argèles specimen has the light wing-coverts very distinct.

*Parus major*, Linn.—Plentiful everywhere.

*P. ater*, Linn.—In the St. Sauveur forests this bird ranks next to the Goldcrest as regards commonness. I brought home four or five nice specimens.

*P. cæruleus*, Linn.—I shot one at St. Sauveur (2525 ft.), and that is the only one I recollect seeing in the Pyrenees.

*Lophophanes cristatus*, Linn. — I met with it twice in the St. Sauveur district. Once I saw three or four together from the hotel balcony, but by the time I had reached the place all had disappeared.

*Sitta cæsia*, Wolf.—Exceedingly common in the deciduous woods round Argèles. I noticed great numbers of their holes (about 1600 ft.)

*Certhia familiaris*, Linn.—Very abundant at Argèles; breeding.

*Tichodroma muraria*, Linn.—I bought a young male from the collector at Argèles, and saw it in the Luz collection also. Last year I had the pleasure of seeing it wild upon Pic Buderaus.

*Troglodytes parvulus*, Koch.—I found its nest fully 4500 feet above the sea-level, at above Argèles, and also once or twice near St. Sauveur.

*Motacilla alba*, Linn.—Day after day I went down to the river-bed at Argèles in the hope of shooting a pair of these continental Wagtails, but each time I came away again without them. They would never come within range of my walking-stick gun. I saw great numbers of them at Argèles, but none at St. Sauveur; in fact only once above Pierrefitte (the railway terminus), so far as I can remember. Breeding.

*M. melanope*, Pall.—Very common both at Argèles and St. Sauveur. A pair were breeding close to our hotel at the latter place.

*Anthus spipoletta*, Linn.—This bird I found very abundant upon the high peaks. The greatest elevation at which I saw it would be about 6500 feet, and in a wild valley under Pic Long I discovered a nest which I feel satisfied belonged to this species, as they were the only birds about; and it was evidently referable to an *Anthus*. The elevation would be 4600 feet. I brought home good skins.

*Oriolus galbula*, Linn.—This bird is, I suppose, fairly common in the Pyrenees, but I only identified it on the wing once, at St. Sauveur. I made its acquaintance in both the Argèles and Luz collections, and bought a fine male out of the latter.

*Lanius collurio*, Linn.—One specimen (male) in the Argèles collection.

*S. auriculatus*, Müll.—I bought a magnificent old male of this species of the Argèles collector. I saw one specimen also at Luz, but it was such a miserable specimen that I felt most easy to let it alone.

*Hirundo rustica*, Linn.—Common everywhere.

*Chelidon urbica*, Linn.—Very abundant indeed. Breeding at St. Sauveur.

*Cotile rupestris*, Scop.—I remember seeing several of what I took to be this bird last year upon the mountain range between St. Sauveur and Cauterets.

*Chrysomitris citrinella*, Linn.—On June 7th, in the celebrated Cirque de Gavarnie, I shot three males of this species, and saw many more, but at St. Sauveur and Argèles I never saw it.

*Serinus hortulanus*, Koch.—I have eggs from Argèles, and shot a male on May 4th near St. Sauveur. In the neighbourhood of houses it is very common.

*Coccothraustes vulgaris*, Pall.—One in the Luz collection.

*Montifringilla nivalis*, Linn.—Near the summit of one of the peaks immediately above Argèles I saw three or four of these birds, both males and females, but I failed to procure any specimens (5500 ft. ?). I also met with a solitary bird on the summit of the wild Col de Saucède (5000 ft.), on the Route Thermale between Argèles and Eaux Bonnes.

*Fringilla cœlebs*, Linn.—Comman everywhere. I have eggs from Argèles. Above St. Sauveur I shot a pair, being anxious to know whether any difference existed between the English and continental forms. I found them smaller and much lighter in plumage, but nothing different beyond that.

*F. montifringilla*, Linn.—One solitary specimen in the Argèles collection.

*Pyrrhula europæa*, Vieill.—Fairly common both at Argèles and St. Sauveur. In this bird I also noticed the same difference as with the Chaffinch. A female from St. Sauveur, in my collection, is wonderfully light in general colour.

*Emberiza citrinella*, Linn.—Not so common in the Pyrenees as I should have expected. I have the skin of a female from near Gèdre, and saw one or two at Argèles.

*E. cirlus*, Linn.—I saw it once at Argèles.

*E. cia*, Linn.—Certainly the commonest Bunting in the St. Sauveur valley. I have a specimen also from Argèles.

*Alauda arborea*, Linn.—I remember seeing one of these birds last summer on an eminence above Bagneres de Bigorre.

*Pyrrhocorax graculus*, Linn.—Curiously enough there is a large colony of these birds at St. Sauveur in the sides of the gorge close to the Pont Napoleon. There must be some hundreds in this colony, and my brother managed to secure two splendid specimens after daily lying in wait for them for some considerable time. One I believe to be an old bird, and the other one probably a year old. I do not remember ever having seen these birds elsewhere in the Pyrenees, except, of course, stragglers at a short distance away from the colony. They are exceedingly wild birds, and consequently it is no easy matter to watch their habits at all closely. They generally prefer some rather isolated piece of rock to sit upon, from which they can survey the surrounding country without fear of a surprise. On referring to my diary, I find that the gizzards of my two specimens contained fragments of Coleoptera, worms, and some vegetable material.

*P. alpinus*, Koch.—Abundant, excepting in the particular region where their larger cousins have their colony, and there, I imagine, they would not dare to put in an appearance. I saw numbers of them in the valley leading up towards Lac Bugeret.

*Garrulus glandarius*, Linn.—Common, and breeding at Argèles; also breeds at St. Sauveur.

*Pica rustica*, Scop.—Common. I have its eggs from Argèles.

*Corvus corax*, Linn.—Abundant in the higher regions.

*Gecinus viridis*, Linn.—One of the most common birds in the Argèles woods. Breeds there.

*Jynx torquilla*, Linn.—One in the Luz collection.

*Upupa epops*, Linn.—In both the local collections.

*Strix flammea*, Linn.—Argèles collection.

*Asio otus*, Linn.—One or two in the Argèles collection.

*A. accipitrinus*, Pall.—In the Argèles collection.

*Scops giu*, Scop.—I saw specimens of this "Petit Duc" in both the Argèles and Luz collections.

*Bubo ignavus*, Forst.—This was in the Luz collection. It had been shot in the great cliffs by the Pont Napoleon. It was simply a skin, and one which I should like well to have purchased, but unfortunately some mischievous individual had deprived it of its head, added to which the moths had been making rather free with the remains.

*Athene noctua*, Retz.—I had one of these presented to me by M. Bordère, of Gèdre. It was shot there some eight or ten years ago.

*Gyps fulvus*, Gmel.—I saw what I took to be this noble

Vulture on two or three occasions in ascending some of the high peaks.

*Gypætus barbatus*, Linn. — I met with it in both the local collections.

*Buteo vulgaris*, Leach. — One or two were shown to me at Argèles.

*Aquila chrysætus*, Linn.—On May 16th we encountered four Eagles, which I have reason to believe were of the present species, on one of the high peaks between Argèles and Lourdes. In my diary I have the following note:—"Birds seemed absolutely wanting for a long time, until we ascended on to the ridge again, and were busily engaged in botanising, &c., when no less than four magnificent Eagles quietly sailed over our heads some forty yards away. After a while they passed us again, and we had another good look at their gigantic forms. Every now and then they were followed by a party of small assailants in the shape of Alpine Choughs." I repeatedly saw these birds higher up the valley.

*Circaetus gallicus*, Gmel.—I noticed a specimen in the Luz collection, and once thought I saw one flying at Argèles, but I cannot be at all certain.

*Accipiter nisus*, Linn.—I watched one female in "The Park," below St. Sauveur, and noticed one or two more in the Luz collection.

*Falco tinnunculus*, Linn. — Several about St. Sauveur. One pair evidently had a nest in the cliffs, where the Choughs reside, and last year I noticed a nest of young ones on the Chateau de St. Marie at Luz. Of course I looked out most carefully for *F. cenchris*, but could not gain any information from either of the two collectors.

*Querquedula crecca*, Linn.—In the collection at Argèles.

*Mareca penelope*, Linn.—One, at any rate, in the Argèles collection. I believe this and the other ducks were taken in the low marshy land by the river between Argèles and Lourdes.

*Fuligula ferina*, Linn.—In the Argèles collection.

*Turtur communis*, Selby. — I only saw this in one of the collections.

*Perdix cinerea*, Lath.—One in the Luz collection, but not a single specimen of *P. rufa*, I think.

*Coturnix communis*, Bonnat.—I did not see a specimen of this bird at all, though the Luz ornithologist showed me some eggs he had taken there.

*Tetrao urogallus*, Linn.—I understand that they are fairly numerous in some of the pine forests above St. Sauveur, though I never had the good fortune to meet with them. In the Argèles collection.

*Porzana maruetta*, Leach. — There is one at Argèles. I imagine this bird came from the river side between there and Lourdes.

*Œdicnemus scolopax*, Gmel.—In the Argèles collection.

*Grus communis*, Bechst. — I noticed a very fine specimen "wrapped" in the Argèles collection.

*Totanus hypoleucus*, Linn.—I saw it in the river-bed near Argèles.

*T. ochropus*, Linn.—I watched one of these birds for some time through my telescope from the old bridge at Argèles. I have no doubt a pair had a nest somewhere near, as we saw them about there once or twice afterwards.

*Numenius arquata*, Linn.—In the collection at Argèles there are two or three specimens.

*Sterna anglica*, Linn.—A bird of this species has found its way into the collection at Luz.

## NOTES AND QUERIES.

### MAMMALIA.

**Rudolphi's Rorqual on the Coast of Essex.**—At a meeting of the Zoological Society, held on the 20th November last, the President (Prof. Flower) gave an account of a specimen of Rudolphi's Rorqual, *Balænoptera borealis*, Lesson (*Sibbaldius laticeps*, Gray), lately captured at the mouth of the river Crouch, Essex. The animal had been stranded, and a dispute arose with regard to ownership, which ended in litigation between the captor and Sir Henry Mildmay, who claimed it as lord of the manor within which it was captured. The judge's decision was in favour of the lord of the manor, but we have not heard what has become of the specimen or whether the skeleton has been preserved. Only one other instance of the occurrence of this whale in British waters has been satisfactorily established. This was a specimen taken near Bo'ness, in the Firth of Forth, in September, 1872, and described by Professor Turner in the 'Journal of

Anatomy and Physiology' for April, 1882 (pp. 471—484). The skeleton of this specimen is preserved in the Anatomical Museum of the University of Edinburgh.—J. E. HARTING.

## BIRDS.

**Records of the Hoopoe in Hampshire.**—In most works on British Birds mention is made of *two* instances of the Hoopoe attempting to breed in Hampshire. One of these rests upon the well-known statement of Gilbert White in his eleventh letter to Pennant, dated 9th September, 1767, that a pair came, "several years ago in the summer," and frequented an ornamental piece of ground joining his garden (Selborne, Hampshire), "and seemed disposed to breed" in his outlet, "but were frightened by idle boys." The second is from Dr. Latham, who states, in his 'Supplement to the General Synopsis of Birds,' 1787 (or in the second Supplement, 1801), that a pair began a nest in Hampshire, but being disturbed forsook it, and went elsewhere. Latham's authority seems to have been Marmaduke Tunstall. Fox states (*vide* 'Synopsis of the Newcastle Museum,' 1827, Preface, p. ix.) that "an original MS. of Mr. Tunstall's, consisting of remarks on Dr. Latham's 'Synopsis of Birds,' apparently addressed to him soon after the publication of his earlier volume, about the year 1783, with additional remarks and corrections in 1784," had come into his hands, and that "Dr. Latham made use of part of his remarks in the first Supplement to his work." Many extracts from this MS. are inserted in the 'Catalogue of the Allan Museum,' and in one of these (p. 61) occurs the note to the entry "The Hoopoe":—"Was informed a pair once began a nest in Hampshire, in the hedge of a garden, but being disturbed they forsook it. Tunst. MS." It does not appear that Tunstall was in communication with White, but he was a friend of his correspondent Daines Barrington, to whom White wrote first in 1796, and through whom the fact of the Hoopoes attempting to nest in White's outlet may have been communicated to Tunstall. The slight discrepancy in the two instances may be readily accounted for by the loose statement of Tunstall, as evinced by his mentioning the birds as having begun their nest "in a hedge." White does not mention their beginning a nest at all, and probably Tunstall did not either, by his speaking of them as attempting to nest in this unlikely situation. May not these two Hampshire records be referable to one and the same case?—OLIVER V. APLIN (Great Bourton, Oxon).

**Snipe perching.**—Whilst at Easterside, Ryerdale, North Yorkshire, last June, I took a walk one evening with the keeper, through some "sievey" fields, where a number of Snipe were breeding, several of which we flushed. One rose in the air, over our heads, emitting the peculiar bleating sound so often noticed, and flew off to a dead ash tree close by, where it perched on the topmost twig for at least a minute. The keeper remarked that he had never seen a Snipe perch before; I have read of such things, but never till then witnessed the fact. Is it a usual habit with the Snipe? I may as well add my mite of information on the subject of Snipe "drumming," which some people say is caused by the motion of the wings. I particularly noticed, and also called the keeper's attention to the circumstance, that when we heard the humming noise, the birds were coming in a slanting direction towards the earth, and that, invariably, the wings were kept stretched out at full extent, and not moved in the slightest degree. I cannot say positively that the sound was caused by the vibration of the tail-feathers; but I am quite certain that the wings were motionless, for one bird came down within two or three yards of where we were standing.—T. H. Nelson (Bishop Auckland).

**Surf Scoter on the Coast of Lancashire.**—When sailing in the estuary of the river Ribble, about 2 p.m. on the 9th December, 1882, I shot a fine female Surf Scoter, *Œdemia perspicillata*. It was swimming about 500 yards from the shore opposite Lytham. The bird was quite alone, and allowed my boat to approach within about fifty yards, when I fired and killed it. I find only twelve instances of its occurrence in British waters mentioned in Harting's 'Handbook of British Birds' (p. 162). I may add that the bird has been seen and identified by my friend Mr. A. G. More, of the Science and Art Museum, Dublin, so that no doubt remains as to the correctness of the name.—Richard H. Thompson (Lytham, Lancashire).

**Ornithological Notes from the Isle of Wight.**—I am informed by Mr. Rogers, of Freshwater, that the under-mentioned birds—some of them of rare occurrence—have been seen or procured in that neighbourhood during the past year. Last February a Glaucous Gull appeared off Freshwater during a severe gale, soaring at a great height, but occasionally alighting on the broken water or skimming the waves with light and buoyant flight: it was eventually shot by Mr. Rogers's son, and proved to be a male in perfect plumage. A pair of Bohemian Waxwings were procured in April, in perfect summer plumage, having the wax-like appendages on the tail as well as on the wings. Several others were met with, but not molested, Mr. Rogers thinking they might possibly remain to breed, but all had disappeared by the end of May. The Waxwing is generally supposed to be a winter visitant only. A pair of Peregrines having been shot at Freshwater during the summer, a second pair appeared and nested in the cliff, eggs were laid, but no young reared. Mr. Rogers tells me that some years since, a male Peregrine having been killed, in the course of ten days another male appeared; but the female was then shot, and the male had to seek another partner, which was also shot, and falling into the sea was picked up in Freshwater Bay. Astonishing as it may appear, a third female was found—paired, nested and reared young. Two Hoopoes and a Golden Oriole were procured in May. Several Dotterels were met with on the Downs (date not given). Tengmalm's Owl was procured during the year. A pair of Bar-tailed Godwits were obtained in September, and several Black Redstarts in October and November. Several pairs of Shags bred in the cliffs, and Cormorants, as usual, in great numbers; also a pair of the Lesser Black-backed Gull, and Black-headed, Gulls, Kittiwakes, &c., and numerous Divers, Puffins, Guillemots, and Razorbills. Though the Chough has not been met with this year, there is reason to believe it may again breed in the Freshwater cliffs—the only suitable spot left. With regard to the Peregrine, considering how it is persecuted, it is surprising to find it still frequenting the cliff. It is to be regretted that a watch is not kept to protect it during the breeding season. It would appear that Freshwater is in the direct line of flight of many migratory species, more rare birds being met with there than in any other part of the island.—HENRY HADFIELD (High Cliff, Ventnor).

**Temerity in Birds.**—The following instances of unwonted temerity, or perhaps curiosity, in birds, which came under my own personal observation, seem to me sufficiently curious to deserve mention. On one occasion, when out flight-shooting in Dorsetshire, I was sitting motionless, in ambush, with gun aslant, when to my astonishment a Barn Owl noiselessly approached and perched for a moment on my gun. Feeling the oscillation, I looked up suddenly, only in time to see the bird spread its wings, and, with a weird shriek, leave its unaccustomed perch. On another occasion—namely, in September last—I was sketching by the sea near Wells, in Norfolk, at a spot where Wheatears were tolerably common, when one of these birds, gradually approaching me, at length hopped boldly on to my palette. I remained perfectly still, and after a few seconds of investigation, the little visitor took its departure.—G. BOUVERIE GODDARD.

[We have heard of two or three instances of Kingfishers perching on the rods of fishermen.—ED.]

**Black Redstart in Co. Waterford.**—An immature female Black Redstart, shot in the churchyard at Dungarvan on the 5th November last, was forwarded to me, and identified by Messrs. Williams & Son, of Dublin, to whom I sent it for preservation. This bird was in company with another when shot, and on the following day three were stated to have been seen at the same place, which they had frequented for several days. I have never before seen this species in the flesh, though there are several instances recorded by Thompson, and Harvey, of its having occurred in the neighbouring county of Cork. In Dr. Burkitt's collection in Waterford is the mature specimen, mentioned by Thompson, obtained in Co. Wexford on

January 30th, 1837, and also an immature bird of this, or the common species, obtained near Waterford, March 28th, 1880. Harrison, one of the lighthouse-keepers at Mine Head, in this county, told me that in December last, during the severe frost, two birds frequented the rocks there. He shot one, which he described as being of the size and shape of a Wagtail, and said that it was slate-blue all over, except the central tail-feathers, which were ruddy. Unfortunately before he carried out his intention of sending it to Mr. More for the Museum it became unfit for preservation.—R. J Ussher (Cappagh, Co. Waterford).

**Black Redstart in Northamptonshire.**—A bird of this species, apparently an adult female, was haunting the steeple of this parish church on Sunday, December 2nd, and feeding busily.—H. H. Slater (Irchester, Wellingborough).

**Grey Phalarope in Yorkshire.**—Allow me to record the occurrence of a Grey Phalarope, which I shot on the 6th December last, in Cayton Bay, three miles south of Scarborough. It is a mature bird, in full plumage.—E. V. Thompson (68, Eastborough, Scarborough).

**Greenland Falcon in Donegal.**—I am indebted to my friend Mr. H. Becher for the information that a Falcon was killed, on the 29th November last, by the gamekeeper of Mr. Charles Stewart, on Horn Head, north coast of Donegal. This locality is not far from the island of Innistrahull, where a Snowy Owl was obtained about the same time last year. The bird has been mounted by Mr. Williams, of Dame Street, and passes into the collection of Mr. Becher. It is a Greenland Falcon, *Falco candicans* (J. F. Gmel.).—A. G. More (Curator of Natural History Museum, Leinster House, Dublin).

**The Bittern in Suffolk.**—Mr. Asten, the birdstuffer in this town (Woodbridge), has received for preservation a fine male Bittern, in full plumage. It was shot towards the end of November, at Sudbourne, near Orford, by the head gamekeeper of Sir Richard Wallace, of Sudbourne Hall.—Graham Sandberg (Woodbridge).

## FISHES.

**Bonito on the Coast of Galway.**—From Mr. Glennon I have lately obtained, for this Museum, a fine specimen of the Bonito, *Thynnus pelamys*, Cuv. et Val., measuring two feet four inches in length, and which I understand was captured near Clifden, Connemara, in August last.—A. G. More (Museum of Science and Art, Dublin),

## ARCHÆOLOGY.

**The "Attagen" of the Ancients.**—The name *attagen*, ἀτταγην, is to be found in all the lexicons, but great diversity of opinion prevails as to the species of bird intended. It has been variously identified with a Grouse (the Hazel Grouse, *Tetrao bonasia*), Francolin (*F. vulgaris*), and Little Bustard (*Otis tetrax*). Liddell and Scott describe it as a "long-billed bird," and suggest a Woodcock or Snipe, referring to Aristotle's description. But Aristotle's words do not seem to justify this view. He says (Hist. An. ix. 26):—"The Woodcock is taken in the orchards with nets; it is of the size of a fowl; its bill is long, its colour *similar to that of the Attagen.*" Not a word about *Attagen* having a long bill. I have little doubt that the *Attagen* of the ancients was a Sand Grouse (*Pterocles*) of some kind, and Cuvier was probably right in identifying it with the Pintailed Sand Grouse (*Pterocles alchata*), a bird which is not uncommon in the countries bordering the Mediterranean.—J. E. HARTING.

## SCIENTIFIC SOCIETIES.

### LINNEAN SOCIETY OF LONDON.

*November* 15, 1881.—Sir JOHN LUBBOCK, Bart., M.P., F.R.S., President, in the chair.

Messrs. P. Crowley and J. Murray were elected Fellows of the Society.

Prof. P. Martin Duncan showed a specimen of coral (*Desmophyllum cristagalli*) which had grown upon an electric-telegraph cable off the shores of Spain; it possessed radicles, apparently due to the presence of a worm close beneath the base of the coral.

Mr. E. P. Ramsay exhibited a series of rare birds from New Guinea and the Solomon Islands, prominent among which were *Charmosyna margarethæ, Geffroyius heteroclitus, Cinnyris melanocephalus, Myiagra ferrocyanea, Ptilopus Richardsii, P. Lewisii*, &c.

Dr. J. Murie showed and made remarks on specimens of *Ascaris bicolor*, Baird, from the living Walrus at the Westminster Aquarium.

A paper was read by Mr. T. J. Briant, "Notes on the Antennæ of the Honey Bee," in which he describes the minute structure of the segments, the joints and certain rod and cone-like organs, of highly sensitive function, previously referred to by Dr. Braxton Hicks.

The next communication was "On the Japanese *Languriidæ*, their habits and external sexual characteristics," by Mr. George Lewis. He remarks that one representative of the family (*L. menetriesi*) has been found in Siberia, lat. 46°; there are none in Europe, and one is known from Egypt; others inhabit the Malay Archipelago, Ceylon, and the American Continent. The author infers, from the geographical distribution of these beetles, that they have emanated from a tropical area. Some in the imago state cling to the stems of brushwood, others sit on the leaves of moist shade-loving plants in the forests, while others, again, frequent *débris* on hill-sides. Their colours are all dull, their bodies elongate, but not structurally adapted for boring. The sexes show peculiar differences in size, monstrous enlargement, and obliquity of the head, volume of tibiæ, &c. In the Munich Catalogue, 1876, there are only 114 species of *Languriidæ* given, and Harold, in the paper cited, describes in 1879 about 40 more, yet the total—say 160—can be but a small portion of those existing in nature, or even acually now extant in our collections. It cannot be said that the fashioning of the *Languriidæ* is the result of influences affecting the insect in some early stage (as larva or pupa) before the imago appears, because we see throughout the whole of the insect world that in each stage of an insect forms are assumed which are adapted solely to such stage, and are entirely free and uncontrolled by any internal structure of the individual during any antecedent stage of its existence. Each, as a larva or imago, is formed for its environment to crawl or fly, and a process which is not immediately obvious checks in all its stages variation or an abrupt departure from the type of its predecessor. The following new species are described by the author:—*Doubledaya succulenta, Languria nigens, L. nara, L. columella,* and *L. fuscosa.*

Prof. P. Martin Duncan read a paper "On the replacement of a true wall or theca by epitheca in some serial *Corallæ*, and on the importance of the structure in the growth of incrusting Corals." After alluding to the discussions which have taken place regarding the value of epitheca in classification, the author states that one form of this structure is simply protective, and that another form is of high physiological value, for it replaces entirely the usual theca or wall. The anatomy of the hard structures of a *Cœloria* illustrates the second proposition, for the broad base is covered by an epitheca within which is no wall or "plateau commun"; the septa, remarkable nodular walls (described in detail), and the columellæ arise from the epitheca directly, and it limits the interseptal loculi inferiorly. In a *Leptoria* the same replacement of a wall by epitheca is seen. In incrusting *Porites* and such *Astræidæ* as *Leptastræa*, the majority of the corallites of the colony arise from this basal epithecate structure, and grow upwards, budding subsequently from their sides.

*December* 6, 1883.—Sir JOHN LUBBOCK, Bart., M.P., F.R.S., President, in the chair.

His Highness the Maharajah of Travancore, and Messrs. C. A. Barber, E. Bostock, H. Friend, J. Hannington, J. S. Hicks, J. Richardson, R. Tate, and H. Tisdall, were elected Fellows of the Society.

A large number of Lepidoptera from the district of Georgetown, Colorado, and a few from Missouri, were exhibited by Mr. Ernest Jacob, who had collected them while engaged in the U.S.A. Geological Survey in the above-mentioned districts, 1880–81.

An essay "On Instinct," by the late Mr. Charles Darwin, was then read by the Zoological Secretary.

After detailing sundry facts with reference to the migratory instincts of different animals, the author of the essay suggests a theory to account for them. This theory is precisely the same as that which was subsequently and independently enunciated by Mr. Wallace in 'Nature,' vol. x. p. 459 (1874). Thus, to quote from the essay:—"During the long course of ages, let valleys become converted into estuaries and then into wider arms of the sea; and still I can well believe that the impulse (originally due to seeking food) which leads the pinioned goose to scramble northwards, would lead our bird over the trackless waters; and that, by the aid of the unknown power by which many animals (and savage men) can retain a true course, it would safely cross the sea now covering the submerged path of its ancient journey." The next topic considered is that of instinctive fear. Many facts are given, showing the gradual acquisition of such instinctive fear, or hereditary dread of man, during the period of human observation. These facts led Mr. Darwin to consider the instinct of feigning death, as shown by sundry species of animals when in the presence of danger. Seeing that "death is an unknown state to each living creature," this seemed to him "a remarkable instinct," and accordingly he tried a number of experiments upon the subject with insects, which proved that in no one case did the attitude in which the animal "feigned death" resemble that in which the animal really died; so that the instinct really amounts to nothing else, in the case of insects at all events, than an instinct to remain motionless, and therefore inconspicuous, in the presence of danger. From the facts given with regard to certain vertebrated animals, however, it is doubtful how far this explanation can be applied to them. A large part of the essay is devoted to "Nidification and Habitation," with the object of showing, by an accumulation of facts, that the complex instincts of nest building in birds, and of constructing various kinds of habitations by mammals, all probably arose by gradual stages under the directing influence of natural selection. Among other "miscellaneous remarks" on instincts in general he notes, first, the variability of instinct is proved by sundry examples; next, the fact of double instincts occurring in the same species; after which, "as there is often much difficulty in imagining how an instinct could first have arisen," it is thought "worth while to give a few, out of many cases, of occasional and curious habits, which cannot be considered as regular instincts, but which might, according to our views, give rise to such." Finally, cases of special difficulty are dealt with; these may be classified under the following heads:—(1) similar instincts in unallied animals; dissimilar instincts in allied animals; (3) instincts apparently detrimental to the species which exhibit them; (4) instincts performed only once during the lifetime of an animal; (5) instincts of a trifling or useless character; (6) special difficulties connected with the instinct of migration; (7) sundry other instincts presenting more or less difficulty to the theory of natural selection. Mr. Darwin concludes:—"We have in this chapter chiefly considered the instincts of animals under the point of view whether it is possible that they could have been acquired through the means indicated on our theory, or whether, even if the simpler ones could have been thus acquired, others are so complex and wonderful that they must have been specially endowed, and thus overthrow the theory. Bearing in mind the facts given on the acquirement, through the selection of self-originating tricks or modification of instinct, or through training and habit, aided in some slight degree by imitation, of hereditary actions and dispositions in our domesticated animals; and their parallelism (subject to having less time) to the instincts of animals in a state of nature; bearing in mind that in a state of nature instincts do certainly vary in some slight degree; bearing in mind how very generally we find in allied but distinct animals a gradation in the more complex instincts which show that it is at least possible that a complex instinct might have been acquired by successive steps; and which moreover generally indicate, according to our theory, the actual steps by which the instinct has been acquired, inasmuch as we suppose allied instincts to have branched off at different stages of descent from a common ancestor, and therefore to have retained, more or less unaltered, the instincts of the several lineal ancestral forms of any one species; bearing all this in mind, together with the certainty that instincts are as important to an animal as their generally correlated structures, and that in the struggle for life under changing conditions, slight modifications of instinct could hardly fail occasionally to be profitable to individuals, I can see no overwhelming difficulty on our theory. Even in the most marvellous instinct known, that of the cells of the hive-bee, we have seen how a simple instinctive action may lead to results which fill the mind with astonishment. Moreover it seems to me that the very general fact of the gradation of complexity of instincts within the limits of the same group of animals; and likewise the fact of two allied species, placed in two distant parts of the world and surrounded by wholly different conditions of life, still having very much in common in their instincts, supports our theory of descent, for they are explained by it; whereas if we look at each instinct as specially endowed, we can only say that it is so. The imperfections and mistakes of instinct on our theory cease to be surprising; indeed it would be wonderful that far more numerous and flagrant cases could not be detected, if it were not that a species which has failed to become modified and so far perfected in its instincts that it could continue struggling with the co-inhabitants of the same region, would simply add one more to the myriads which have become extinct. It may not be logical, but to my imagination it is far more satisfactory to look at the young cuckoo ejecting its foster-brothers, ants making slaves, the larvæ of the *Ichneumonidæ* feeding within the live bodies of their prey, cats playing with mice, otters and cormorants with living fish, not as instincts specially given by the Creator, but as very small parts of one general law leading to the advancement of all organic bodies—Multiply, Vary, let the strongest Live and the weakest Die."*

An interesting discussion followed, in which Professors Huxley, Allman, Mivart, Foster and Lankester, Messrs. Wallace and Seebohm, and others took part.

*December* 20, 1883.—ALFRED W. BENNETT, F.L.S., in the chair.

Messrs. N. Cantley, W. Dobson, F. G. Smart, and Rev. R. Thom were elected Fellows of the Society.

Mr. S. O. Ridley exhibited and made remarks on a series of 177 vertical sections of Sponges collected in the neighbourhood of Point de Galle, Ceylon, by Dr. W. C. Ondaatje, and transmitted to England by him in letters. They are in most instances sufficient for the identification of the genera and some species.

Mr. F. Maule Campbell showed the web of a spider (*Tegenaria Guyonii*) which had been spun in the centre of a paste-board cylinder, the peculiarity being the manner in which the solid part of the web was medially swung; for in this species of spider it is more usually on the sides of objects.

A communication was read "On the Auditory Ossicles of *Rhytina Stelleri*," by Mr. Alban Doran. This was based on skeletons obtained by the 'Vega' Expedition, and shown at the late International Fisheries Exhibition by the Swedish Government. The author found that the malleus in *Rhytina* is larger than in *Manatus*, and is therefore the largest and bulkiest malleus to be found in any animal where such a bone exists, that in the characters of its body it resembles *Manatus* rather than *Halicore*, and that in the manubrium it differs from the other *Sirenia*, and is far more generalised. The incus is of the *Manatus* type, and so is the stapes, which is also larger and bulkier than that of any other animal —J. MURIE.

## ZOOLOGICAL SOCIETY OF LONDON.

*December* 4, 1883.—Prof. W. H. FLOWER, LL.D., F.R.S., President, in the chair.

Mr. Philip Crowley exhibited and made remarks on an egg of a Bowerbird from Southern New Guinea, supposed to be that of *Chlamydodera cerviniventris.*

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* The full text of this essay will appear shortly in the 'Journal of the Linnean Society.'

Sir Joseph Fayrer exhibited a shed deer-horn, apparently gnawed by other deer, and made remarks on this subject.

Mr. Sclater exhibited, on the part of Dr. George Bennett, four skins of a species of Paradise-bird of the genus *Drepanornis*, obtained in the vicinity of Port Moresby, in Southern New Guinea. Mr. Sclater considered this form to be only subspecifically different from *D. Albertisi* of North-eastern New Guinea.

Mr. W. Burton exhibited a supposed hybrid between a male Blackcock and a hen Pheasant.

Mr. R. Bowdler Sharpe gave descriptions of some new species of Flower-peckers, viz., *Dicæum sulaense*, from the Sula Islands; *D. pulchrius*, from S.E. New Guinea; and *D. Tristrami*, from the Solomon Islands. The author added some critical notes on other species of *Dicæum* and *Prionochilus.*

Mr. J. B. Sutton read a paper on the diseases of Monkeys dying in the Society's Gardens, on which he gave many interesting details. Mr. Sutton called special attention to the prevalence of the belief that Monkeys in confinement generally die of tuberculosis, and showed that such is not really the case.

Mr. H. O. Forbes read a paper describing the peculiar habits of a spider, *Thomisus decipiens*, as observed by him in Sumatra.

A second paper by Mr. Forbes gave an account of some rare birds from the Moluccas and from Timor Laut. To this the author added the description of a new species of Ground-Thrush from Timor Laut, which he proposed to call *Geocichla Machiki*, in acknowledgment of services rendered to him by Dr. Julius Machik in Sumatra.

A communication was read from Prof. J. von Haast, containing notes on *Ziphius* (*Epiodon*) *novæ-zealandiæ*, in continuation of a former paper read before the Society on the same subject. A second communication from Prof. Haast gave a description of a large Southern Rorqual, *Physalus* (*Balænoptera*) *australis*, which had been washed ashore dead on the New Brighton beach, about five miles from Christchurch, New Zealand. Prof. Haast was doubtful as to the distinctness of this animal from *Balænoptera musculus* of the Northern Atlantic.

Mr. G. French Angas read some notes on the terrestrial Mollusca of Dominica collected during a recent visit to that island.—P. L. SCLATER, *Secretary.*

# NOTICES OF NEW BOOKS.

*Evolution and Natural Theology.* By W. F. Kirby, of the British Museum. 8vo. London: Sonnenschein & Co. 1883.

Some ten years ago the subject for the "Actonian Prize Essay" was the relation of the doctrine of Evolution to Natural Theology; if we were, at the time, correctly informed, two essays were submitted to the adjudicators; at any rate, Mr. Lowne, the well-known student of the histology of insects gained the Prize, and published an essay on the 'Philosophy of Evolution,' which we must confess we have never read. We do not know whether Mr. Kirby's was the unsuccessful essay, but he tells us that "a great part" of the present work was written some time ago, and we do see in it the very notes,—we cannot say of an unsuccessful prize essay, for we do not remember ever to have had the misfortune to read one,—but of the ordinary "prize essay." We see, that is, the hasty appropriation of work done by others, undigested, crude, and careless statements of facts, and an uncritical use of general works and more or less trustworthy compilations. For example, the Mollusca and the Vertebrata are supposed to have a common origin in the "Molluscoida"—as though the very facts of Tunicate development had not, once for all, separated them from the Mollusca. We hear of Monera as having no "outer epidermis," and we have the works of Darwin, Spencer, and Carpenter quoted side by side with those of Murphy and Ponton.

Sometimes the point insisted on by the authority quoted is completely misunderstood. Writing of the origin of life, Mr. Kirby tells us that "the semi-organised mud at the bottom of the deep sea may be the transitional stage between inorganic and organic matter." There is no "may be" at all about it—if by this curious mud he means the "ooze"; this is, in a sense, an intermediate stage, but in the very opposite direction to which Mr. Kirby points, for it is being converted into red clay and greensand.

In other cases,—*e.g.* in his chapter on Evolution in Astronomy and Philology,—there is no reference at all to the more suggestive writers, such as Schleicher, whose famous essay, translated into

English under the title of 'Darwinism tested by the Science of Language,' is one of the most remarkable supports to the Darwinian doctrine that has ever appeared from the philological side.

The present essay deals with so many subjects,—inclusive of witches and intermediate intelligences,—that it is difficult to give any idea of its scope, and the "philosophical" portion is altogether beyond us. Our opinion as to its value has been based chiefly on the chapters which deal with subjects to which our own studies and those of our readers have been more particularly devoted, and we are compelled to say that on the subjects of Homology and Embryology Mr. Kirby has been writing about what he clearly does not understand. He writes (on p. 79) of the "skin" and the "lining of the stomach" in Hydra, and declares that "the functions of life" "devolve almost entirely" upon the former: this is followed by a statement which, if it has any meaning at all, is absolutely ridiculous—"Even in the highest animals, the functions of different organs are interchangeable to a limited extent"; but not even an acrobat can walk on his hands and feed himself with his feet. "The Amphibia, Vertebrata, and (with some fossil exceptions) also the Reptilia, have four limbs, normally possessing five digits." Again, on p. 81, we learn that "in nearly all Vertebrata," the neck is composed of seven vertebræ. The old story of the sacral vertebræ varying in number is repeated without any reference to the views of Gegenbaur, who speaks of sacral and pseudo-sacral vertebræ, or to the teaching of A. Milne-Edwards, who tells us that "the posterior limit of the sacral region is characterised, not by the union of the different osseous pieces, *which varies with age*," &c. Then we have the old objections to the vermiform appendix in the human cœcum, and the idea is derided that this exists for the purpose of rendering his internal anatomy more like that of a Kangaroo. Mr. Kirby says, "Can anything be more preposterous than such a suggestion?" Truly there cannot; the apex of the Kangaroo's cœcum, as is well known, is "rounded"; it is the Wombat that has a vermiform appendix. The eyes of Cephalopods are said to be perfectly homologous with those of the Vertebrata; but there is no notice of their different developmental history. Our author seems to think that the epipubes or so-called marsupial bones of certain mammals have a relation to the secondary sexual characters, for he says that the development of mammæ in the male is "perfectly analogous to that of the presence of marsupial bones" in male marsupials!

This will be enough of Mr. Kirby's anatomy.

His "embryology" is of much the same character; we are told (p. 97) that the "ovum of a mammal presents at one period an extremely close resemblance to *Volvox globator*"! That the larvæ of all Crustacea resemble each other very closely on emerging from the egg!, whereas, as a matter of fact, the Cirriped is at first a *Nauplius*, the Crab a *Zoëa*, and the Crayfish is born in the form of the adult.

This will do, we think, for Mr. Kirby's embryology, which, by the way, seems in Man to be a useless rudiment: no other meaning can we give to the sentence, "For, apart from embryology, which we will consider in the next chapter, there are in man more than one of the useless and even dangerous structures to which we have just alluded." Of course this is only bad grammar, but the many instances which we have noted of bad science, bad grammar, and worse taste, have unfortunately precluded the expression of anything like a favourable opinion of the work. In regard to the last-named failing, Mr. Kirby must of course be his own *arbiter morum*, but it seems hardly in good taste to observe (p. 22), that "on the whole, the divines to whose lot it fell to fix the canon of the New Testament appear to have made a very judicious election"; or (p. 193), "I follow the usual story of Herodotus here merely in illustration of the argument, without in any way pledging myself to the historical accuracy of the tradition which he records"; or again (p. 170, "It was in this sense that Christ himself observed that although not a sparrow was forgotten before God, yet men are of more value than many sparrows,—a very suggestive remark of this profound observer of man and Nature."

Should the reader consider our criticism too severe, let him look at the fifteen conclusions which Mr. Kirby has set down in his last chapter, and say whether he can find in them aught else save truisms, scarcely worth printing, dogmatic assertions such as "Evolution reveals to us the true system of Nature;" or nonsense such as "Man is immortal by virtue of the inherent indestructibility of Life itself"!

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